COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

HQ AFIA/IMP - 1

AUL/LSD - 1

This instruction implements AFPD 33-1, *Command, Control, Communications, and Computer (C4) Systems.* It assigns responsibilities for ensuring command requirements for C4 systems architectural compliance and interoperability are being met when technical services for automated information systems, and associated software, hardware, and networks are provided by contractual support. This instruction applies to services obtained either through existing available contracts or contracted on an individual task basis through local contracting support squadrons. See **Attachment 1** for a glossary of references used in this publication and needed for C4 requirements.

1. Terms Explained:

    1.1. Architecture. The structure of components, their relationships, and the principles and guidelines governing their design and evolution over time.

    1.2. Communications-information Technical Support. Any services (to include commercial-off-the-shelf (COTS) solutions, tailored COTS solutions, and custom-built solutions) for personal, mini-, and mainframe computer systems relating to:

        1.2.1. Developing and managing automated information systems (AIS) software, including software requirements analysis; preliminary and detailed design; coding and computer software unit testing; computer software component integration and testing; computer software integration item testing; and modernization efforts.

        1.2.2. Performing AIS engineering studies, analyses, and simulation to define and optimize system and subsystem interoperability, life cycle costs, integration, reliability and maintainability, safety, vulnerability, human factors, training, systems standardization, security, interface perfor-

mance characteristics, and other systems engineering consideration required to support the AETC mission.

1.2.3. Applying automated information tools and techniques to analyze changes in essential information flows and processes, prioritize issues, decompose functions, identify critical success factors, develop conceptual data models, and validate automated functional models with the user.

1.2.4. Developing communications-information systems architectures as defined in DoD, Air Force, and AETC directives, instructions, and (or) policies mandating standards.

1.2.5. Developing, operating, and maintaining local area networks, metropolitan area networks, and wide area networks, to include system/network administration and system security functions to support and maintain networks.

1.2.6. Maintaining users' AISs to include operation, test, repair, preventive maintenance, and maintenance control activities.

1.3. Operational Architecture (OA). Descriptions of the tasks, operational elements, and information flows required to accomplish or support a warfighting function. (C4ISR Architecture Framework)

1.4. Statement of Work (SOW). For the purpose of this instruction, SOW is interchangeable with work statement, scope of services, performance-based statements of work, and performance work statement. All are labels used to identify purchase descriptions that define service requirements.

1.5. Systems Architecture (SA). Descriptions, including graphics, of systems and interconnections providing for or supporting warfighting functions. (C4ISR Architecture Framework)

1.6. Technical Architecture (TA). A minimal set of rules governing the arrangement, interaction, and interdependence of the parts or elements whose purpose is to ensure that a system conforms to a specified set of requirements. (C4ISR Architecture Framework)

2. Responsibilities:

2.1. HQ AETC/SC. HQ AETC/SC will:

2.1.1. Review all SOWs to acquire communications-information technical support, as defined in paragraph **1.2.**, through service contracts; coordinate the SOW with applicable headquarters organizations; and provide the requesting organization a status or final coordination within 5 workdays.

2.1.2. Help requesting activities identify existing contracts and determine the best method for acquiring support. Communications-information technical services may be acquired from existing contracts or new individual contracts through local contracting squadrons or headquarters contracting organizations. *NOTE:* Requesting activities are strongly encouraged to solicit local contracting squadron support as early as possible, in all information acquisition planning efforts.

2.1.3. Provide a user's handbook to guide customers in preparing an acquisition package.

2.1.4. Provide technical support in the preparation of SOWs. For assistance, call the Technology Policy Branch (HQ AETC/SCTA) at DSN 487-2160.

2.2. AETC Functional Organizations. Functional organizations will:

2.2.1. Prepare the SOW; coordinate SOW through the base C4 systems officer (CSO) and, if applicable, the functional software development activity (SDA); and forward the package to HQ AETC/SCTA for SC review and coordination. The SOW may be submitted:

2.2.1.1. Via e-mail to acqspt@rndgate1.aetc.af.mil.

2.2.1.2. Via fax to DSN 487-6258; commercial (210) 652-6258.

2.2.1.3. By mail to HQ AETC/SCTA, 61 Main Circle Ste 2, Randolph AFB TX 78150-4545.

2.2.2. Include applicable references in the SOW for compliance with C4 standards and conventions. See attachment 1 for a list of DoD, Air Force, and AETC directives concerning policy and guidelines on C4 requirements. *NOTE:* This list is not all inclusive.

2.3. AETC Software Development Activities (SDA). SDAs will:

2.3.1. Ensure the requirement for software development conforms to, and is included in, the AETC AIS Migration Baseline, if applicable. The Information Engineering Branch (HQ AETC/ SCTI), DSN 487-5383, is the office of primary responsibility (OPR) for the AIS Migration Baseline. For information on the SDA that supports your organization, see **Attachment 1** or call the AETC Computer Systems Squadron, Systems Support Flight (AETC CSS/SCIP), at DSN 487-3517.

2.3.2. Notify the central design activity (CDA) OPR (AETC CSS/SCI, DSN 487-5699) to include the software in the defense integration support tools (DIST).

2.4. AETC CSS Central Design Activity (CDA). AETC CSS/SCI will ensure each applicable software application is registered in the DIST. Guidelines for registering software applications is projected to be published in AFI 33-123, *Defense Integration Support Tools.* Until that time, contact AETC CSS/SCIR, DSN 487-5699, for assistance in DIST registration.

2.5. C4 Systems Officers (CSO). Base-level CSOs will ensure the proposed operational, system, and technical architecture of the requirement conforms to the base and command architecture according to AFI 33-103/AETC Sup 1, *Requirements Development and Processing.* Include the final action in the base C4 systems blueprint as appropriate.

ANTHONY W. BELL, Jr., Colonel, USAF
Director of Communications & Information

Attachment 1

GLOSSARY OF REFERENCES

REFERENCES

DoDD 5000.1, *Defense Acquisition*

DoDI 5000.2-R, *Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information System (MAIS) Acquisition Programs*

DoDI 7041.3, *Economic Analysis for Decisionmaking*

DODD 8000.1, *Defense Information Management (IM) Program*

DoDD 8320.1, *DoD Data Administration DoD Technical Architecture Framework for Information Management (TAFIM)*

MIL-STD-498, *Software Development and Documentation*

AFPD 33-1, *Command, Control, Communications, and Computer (C4) Systems*

AFI 33-101, *Command, Control, Communications, and Computer Systems Management Guidance and Responsibilities*

AFI 33-102, *Command, Control, Communications, and Computers and Intelligence (C4I) Capabilities Planning Process*

AFI 33-103, *Requirements Development and Processing,* and its AETC supplement

AFI 33-104/AETC Sup 1, *Base-Level Planning and Implementation,* and its AETC supplement

AFI 33-108, *Compatibility, Interoperability, and Integration of Command, Control, Communications, and Computer (C4) Systems*

AFI 33-110, *Data Administration Program*

AFI 33-114, *Software Management*

AFI 33-115, *Networks Management*

AFI 33-204, *The C4 Systems Security Awareness, Training, and Education (SATE) Program*

AFI 33-206, *Air Force Specialized Information Protection Publications*

Defense Information Infrastructure Master Plan Ver 4

Office of Management and Budget (OMB) Circular A-109, and its revisions, 1976

Paperwork Reduction Reauthorization Act, 1986

SAF Order 560.1, *The Air Force Information Resources Management (IRM) Program, 1994*

Government Performance and Results Act of 1995

Paperwork Reduction Act of 1995

Federal Acquisition Regulation (FAR)

Federal Information Technology Management Reform Act (ITMRA), 1996

OMB Circular A-130, *Management of Federal Information Resources, 1996 Goldwater-Nichols Department of Defense Reorganization Act (Public Law 99-433)*